WHAT IS CLAIMED IS:

1. A dynamoelectric machine stator core for receiving a stator winding, said stator core comprising:

- a core body defining a pair of axially opposed core end surfaces and a substantially cylindrical core main peripheral surface extending between said core end surfaces;

- a plurality of substantially axially extending stator slots circumferentially spaced in said core body, said stator slots defining intervening teeth projecting substantially radially towards said core main peripheral surface; each of said stator slots extending radially from a corresponding slot base to said core main peripheral surface;

wherein each of said stator slots defines

- a slot first section extending radially from said slot base to a slot intermediate radial position located intermediate said slot base and said core main peripheral surface;

- a slot second section extending radially from substantially adjacent said slot intermediate radial position towards said core main peripheral surface;

said slot first and second sections

- communicating with each other and being in a circumferentially offset relationship relative to each other, and

- being positioned, configured and sized to facilitate insertion therein of a corresponding conductor section of said stator winding with reduced needs for deforming said corresponding conductor section.

2. A stator core as recited in claim 1, wherein said slot first and second sections are circumferentially offset relative to each other by an offsetting angle of approximately XX degrees.

3. A stator core as recited in claim 1, wherein said slot first and second sections both extend substantially radially and wherein each of said stator slots further defines a slot intermediate section extending between said slot first and second sections, said slot intermediate section extending substantially at an angle relative to said slot first and second sections.

4. A stator core as recited in claim 1, wherein said slot first section has a substantially rectangular cross-sectional configuration, said slot first section defining a substantially flat slot base wall, a substantially flat first section first wall and a substantially flat first section second wall, said first section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall.

5. A stator core as recited in claim 1, wherein said slot second section has a substantially rectangular cross-sectional configuration, said slot second section defining a substantially flat second section first wall and a substantially flat second section second wall, said second section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall.

6. A stator core as recited in claim 1, wherein

-said slot first section has a substantially rectangular cross-sectional configuration, said slot first section defining a substantially flat slot base wall, a substantially flat first section first wall and a substantially flat first section second wall, said first section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall;

- said slot second section has a substantially rectangular cross-sectional configuration, said slot second section defining a substantially flat second section first wall and a substantially flat second section second wall,

said second section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall.

7. A stator core as recited in claim 6, wherein said first and second section first walls are offset relative to each other by a first circumferential offsetting distance of approximately 0.0276 inch.

8. A stator core as recited in claim 6, wherein said first and second section second walls are offset relative to each other by a second circumferential offsetting distance of approximately 0.0276 inch.

9. A stator core as recited in claim 6, wherein said first and second section first walls are offset relative to each other by a first circumferential offsetting distance of approximately 0.0276 inch and wherein said first and second section second walls are offset relative to each other by a second circumferential offsetting distance of approximately 0.0276 inch.

10. A stator core as recited in claim 6, wherein

- a first intermediate wall segment extends between said first and second section first walls;

- a second intermediate wall segment extends between said first and second section second walls;

- said first and second intermediate wall segments being angled relative respectively to said first and second section first walls and said first and second section second walls by an intermediate segment-to-wall angle.

11. A stator core as recited in claim 10, wherein said intermediate segment-to-wall angle has a value of approximately 135 degrees.

12. A stator core as recited in claim 10, wherein said first and second intermediate wall segments are radially offset relative to each other by a radial offsetting distance.

13. A stator core as recited in claim 12, wherein said radial offsetting distance is such that the intersection between said second section first wall and said first intermediate wall segment is substantially radially in register with the intersection between said first section second wall and said second intermediate wall segment.

14. A stator core as recited in claim 10, wherein said first and second intermediate wall segments are substantially radially in register with each other.

15. A stator core as recited in claim 1, further comprising a retaining means operatively coupled to at least one of said stator slots for radially retaining corresponding stator winding sections therein.

16. A stator core as recited in claim 15, wherein said retaining means includes a retaining plate, said retaining plate being mountable within a corresponding stator slot so as to extend substantially axially therein and so that said corresponding winding sections are positionable between said slot base and said retaining plate.

17. A stator core as recited in claim 16, wherein said slot second section defines a retaining segment positioned adjacent said core main peripheral surface, said retaining segment having a retaining groove formed therein for receiving a peripheral portion of said retaining plate and retaining the latter.

18. A stator core as recited in claim 17, wherein

- said slot first section has a substantially rectangular cross-sectional configuration, said slot first section defining a substantially flat slot base wall, a substantially flat first section first wall and a substantially flat first section second wall, said first section first and second walls both extending

substantially radially and in a substantially perpendicular relationship relative to said slot base wall;

- said slot second section defines a substantially flat second section first wall and a substantially flat second section second wall, said second section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall;

- said retaining segment defining a substantially flat retaining section first wall and a circumferentially opposed and substantially flat retaining section second wall, said retaining groove having a first groove segment formed in said retaining section first wall and a second groove segment formed in said retaining section second wall.

19. A stator core as recited in claim 18, wherein said retaining section first wall is substantially circumferentially in register with said first section first wall and said retaining section second wall is substantially circumferentially in register with said second section second wall.

20. A stator core as recited in claim 19, wherein said first groove segment merges integrally with said second section first wall.

21. A stator core as recited in claim 20, wherein said first and second groove segments both taper inwardly in a direction leading towards said core main peripheral surface.

22. A stator core as recited in claim 1, wherein said core main peripheral surface is located radially outwardly.

23. A stator core as recited in claim 1, wherein:

-said slot first section has a substantially rectangular cross-sectional configuration, said slot first section defining a substantially flat slot base wall, a substantially flat first section first wall and a substantially flat first

section second wall, said first section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall;

- said slot second section has a substantially rectangular cross-sectional configuration, said slot second section defining a substantially flat second section first wall and a substantially flat second section second wall, said second section first and second walls both extending substantially radially and in a substantially perpendicular relationship relative to said slot base wall;

- said first and second section first and second walls defining a substantially common and radially oriented section height;

- said first section first and second walls and said second section first and second walls defining a substantially circumferentially oriented first-to-second wall spacing respectively therebetween;

- said section height and said first-to-second spacing being related to each other by a height-to-spacing ratio having a value of approximately 1.23.

24. A stator core as recited in claim 23, wherein said first-to-second wall spacing has a value of approximately 0.2284 inch.

25. A stator core as recited in claim 24, wherein each of said stator slot defines a corresponding slot depth between said slot base and said core main peripheral surface, said slot depth having a value of approximately 0.7119 inch.

26. A stator core as recited in claim 25, wherein

- a first intermediate wall segment extends between said first and second section first walls;

- a second intermediate wall segment extends between said first and second section second walls;

- said first and second intermediate wall segments being angle relative respectively to said first and second section first walls and said first and second section second walls by an intermediate segment-to-wall angle;

-said first and second intermediate wall segments spanning over an intermediate wall segment radial distance of approximately 0.0552 inch.

27. A stator core as recited in claim 26, wherein said slot second section defines a retaining segment positioned adjacent said core main peripheral surface, said retaining segment having a retaining groove formed therein for receiving a peripheral portion of said retaining plate and retaining the latter.

28. A stator core as recited in claim 25, wherein

- said stator core defines an axially extending stator central axis;
- said core main peripheral surface is located radially outwardly;
- said stator core further defines a radially innermost and substantially cylindrical core auxiliary peripheral surface, each of said core end surfaces having a substantially annular configuration;
- said core main peripheral surface being located at an outer radial distance of approximately 7.9031 inches from said stator central axis;
- said core auxiliary peripheral surface being located at an inner radial distance of approximately 6.7913 inches from said stator central axis.

29. A dynamoelectric machine stator core for receiving a stator winding, said stator core comprising:

- a core body defining a pair of axially opposed core end surfaces and a substantially cylindrical core main peripheral surface extending between said core end surfaces;
- a plurality of substantially axially extending stator slots circumferentially spaced in said core body, said stator slots defining intervening teeth projecting substantially radially towards said core main

peripheral surface; each of said stator slots extending radially from a corresponding slot base to said core main peripheral surface;

- wherein each of said stator slots defines

- a radially innermost slot base wall;

- circumferentially opposed first section first and second walls extending substantially perpendicularly from said slot base wall towards said core main peripheral surface;

- first and second intermediate wall segments extending respectively from said first section first and second walls at an angle relative to the latter;

- second section first and second walls extending respectively from first and second intermediate wall segments in a substantially parallel and circumferentially offset relationship relative respectively to said first section first and second walls;

- said second section defining a retaining segment positioned adjacent said core main peripheral surface, said retaining segment having a retaining groove formed therein for receiving a peripheral portion of said retaining plate and retaining the latter.

30. A stator core as recited in claim 29, wherein said retaining segment defining a substantially flat retaining section first wall and a circumferentially opposed and substantially flat retaining section second wall, said retaining groove having a first groove segment formed in said retaining section first wall and a second groove segment formed in said retaining section second wall.

31. A stator core as recited in claim 30, wherein said retaining section first wall is substantially circumferentially in register with said first section first wall and said retaining section second wall is substantially circumferentially in register with said second section second wall.

32. A dynamoelectric machine stator core for receiving a stator winding, said stator core comprising:

a core body defining a pair of axially opposed core end surfaces and a substantially cylindrical core main peripheral surface extending between said core end surfaces;

a plurality of circumferentially spaced stator slots extending in said core body with said stator slots defining intervening teeth projecting substantially radially towards said core main peripheral surface; each of said stator slots extending radially from a corresponding slot base to said core main peripheral surface; each of said stator slots defining a first slot wall and a second slot wall both extending substantially radially into said core body in a substantially parallel and circumferentially spaced relationship relative to each other; said first slot wall having a circumferentially recessed first wall recess located substantially adjacent said core main peripheral surface; said second slot wall having a circumferentially recessed second wall recess located substantially adjacent said slot base.

33. A stator core as recited in claim 32, wherein said first wall recess is spaced from said core main peripheral surface by a first wall retaining section.

34. A stator core as recited in claim 33, wherein said first wall retaining section is substantially circumferentially in register with the remainder of said slot first wall.

35. A stator core as recited in claim 32, wherein said first wall recess and said second wall recess are radially and circumferentially spaced relative respectively to the remainder of said first and second slot walls by respectively a first and a second intermediate wall segment.

36. A stator core as recited in claim 32, wherein said slot first and second walls are respectively provided with a first retaining slot segment and a second retaining slot segment formed respectively therein at a radial position located between said first wall recess and said core main peripheral surface; said stator core also including a retaining plate insertable into said first and second retaining slots so as to extend axially and transversally across said stator slot.

37. A dynamoelectric machine comprising:

a stator having

- a core body made of ferromagnetic material, said core body defining a pair of axially opposed core end surfaces and a substantially cylindrical core main peripheral surface extending between said core end surfaces;

- a plurality of substantially axially extending stator slots circumferentially spaced in said core body, said stator slots defining intervening teeth projecting substantially radially towards said core main peripheral surface; each of said stator slots extending radially from a corresponding slot base to said core main peripheral surface;

wherein each of said stator slots defines

- a slot first section extending radially from said slot base to a slot intermediate radial position located intermediate said slot base and said core main peripheral surface;

- a slot second section extending radially from substantially adjacent said slot intermediate radial position towards said core main peripheral surface;

said slot first and second sections

- communicating with each other and being in a circumferentially offset relationship relative to each other;

- a stator winding embedded in said stator slots;

- a rotor made of ferromagnetic material positioned so as to define a substantially cylindrical stator-to-rotor gap between said core main peripheral surface and said rotor, said rotor being supported for rotational movement relative to said stator, said rotor including conductive means for interacting with a magnetic field produced in said stator-to-rotor gap when said stator winding is energized;

- whereby said slot first and second sections are positioned, configured and sized to facilitate insertion therein of a corresponding conductor section of said stator winding with reduced needs for deforming said corresponding conductor section.

38. A dynamoelectric machine as recited in claim 37, wherein said rotor is positioned radially externally relative to said stator.

39. A dynamoelectric machine as recited in claim 38, wherein said stator winding includes a plurality of winding section, each of said winding sections including

- two parallel conductor sides of substantially rectangular cross-section configured and sized for fitting respectively into two of said stator slots, said conductor sides defining a plane; and

- at least one conductor head of substantially rectangular cross-section connecting two adjacent ends of said conductor sides.

40. A dynamoelectric machine as recited in claim 39, wherein said at least one conductor head shows a substantially "U"-shaped body when seen from a top view perpendicular to said plane, and a substantially waved-shape generally in the form of a horizontally positioned "S" when seen from a front view contained in said plane.

41. A dynamoelectric machine as recited in claim 40, wherein said at least one conductor head has top and bottom opposite surfaces, said

top surface facing only one side of said plane and said bottom surface facing only an opposite side thereof.

42. A lamination plate for forming the stator core of a stator, part of a dynamoelectric machine, when aligned and stacked with similar lamination plates, said lamination plate comprising:

- a plate body made of ferromagnetic material, said plate body defining a pair of axially opposed plate end surfaces and a substantially annular plate main peripheral surface extending between said plate end surfaces;

- a plurality of substantially axially extending stator slots circumferentially spaced in said plate body, said stator slots defining intervening teeth projecting substantially radially towards said plate main peripheral surface; each of said stator slots extending radially from a corresponding slot base to said plate main peripheral surface;

wherein each of said stator slots defines

- a slot first section extending radially from said slot base to a slot intermediate radial position located intermediate said slot base and said plate main peripheral surface;

- a slot second section extending radially from substantially adjacent said slot intermediate radial position towards said plate main peripheral surface;

- said slot first and second sections communicating with each other and being in a circumferentially offset relationship relative to each other.

43. A method for mounting a conductor section part of a stator winding onto a stator core of a dynamoelectric machine, said conductor section having two substantially parallel conductor sides and at least one conductor head connecting two adjacent ends of said conductor sides; said stator core defining a pair of axially opposed core end surfaces and a substantially cylindrical core main peripheral surface extending between said core end surfaces; at least two circumferentially spaced stator slots extending

substantially axially in said core body, said stator slots defining intervening teeth projecting substantially radially towards said core main peripheral surface; each of said stator slots extending radially from a corresponding slot base to said core main peripheral surface with each of said stator slots defining a slot first section extending radially from said slot base to a slot intermediate radial position located intermediate said slot base and said core main peripheral surface and a slot second section extending radially from substantially adjacent said slot intermediate radial position towards said core main peripheral surface, said slot first and second sections communicating with each other and being in a circumferentially offset relationship relative to each other; the distance between circumferentially opposite lateral surfaces of said conductor sides being smaller than the distance between circumferentially adjacent lateral surfaces of said at least two stator slots; said method comprising:

- without substantially deforming said conductor section, manipulating said conductor section so as to insert a first one of said conductor sides in said slot first section of said first one of said stator slots and a second one of said conductor sides in said slot second section of said second one of said stator slots.

44. A method as recited in claim 43, wherein manipulating said conductor section includes:

- inserting partially said first one of said conductor sides into a corresponding first one of said stator slots;

- pivoting said conductor section about said first one of said conductor sides to allow said first one of said conductor sides to slide into said slot second section of said first of said stator slots and said second of said conductor sections to be in circumferential register with said second of said stator slots;

- translating said conductor section substantially radially until said first one of said conductor sections is in said slot first section of said first one of

said stator slots and said second one of said conductor sections is in said slot second section of said second one of said stator slots.